

REMARKS

Claims 1-19 are pending in this application. By this Amendment, claim 19 is amended. Reconsideration based on the above amendments and following remarks is respectfully requested.

The Office Action rejects claims 1 and 4 under 35 U.S.C. §102(b) over U.S. Patent No. 5,508,834 to Yamada et al. (hereinafter "Yamada"), or alternatively under 35 U.S.C. §102(e) over U.S. Patent No. 5,734,454 to Omae et al. (hereinafter "Omae"); claims 2 and 6-9 under 35 U.S.C. §103(a) over Omae in view of Yamada; claim 5 under 35 U.S.C. §103(a) over Omae in view of U.S. Patent No. 5,865,521 to Hashizume et al. (hereinafter "Hashizume"); claims 3 and 10 under 35 U.S.C. §103(a) over Omae in view of U.S. Patent No. 3,910,682 to Arai et al. (hereinafter "Arai"); claims 11-13 under 35 U.S.C. §103(a) over Omae in view of U.S. Patent No. 5,868,485 to Fujimori et al. (hereinafter "Fujimori 485"); claims 14-16 under 35 U.S.C. §103(a) over U.S. Patent No. 6,007,205 to Fujimori (hereinafter "Fujimori 205") in view of Yamada; claim 17 under 35 U.S.C. §103(a) over Fujimori 205 in view of Yamada and further in view of Arai; and claims 18 and 19 under 35 U.S.C. §103(a) over Yamada in view of Fujimori 205. These rejections are respectfully traversed.

Regarding the rejection of independent claims 1 and 4 under 35 U.S.C. §102(b) over Yamada, or alternatively under 35 U.S.C. §102(e) over Omae, neither Yamada nor Omae discloses, teaches or suggests "a transparent plate bonded to, and in contact with, substantially the entire at least one surface of the optical modulation device", as recited in claim 1, or "a transparent plate formed on a light emitting surface of said optical modulation device, the transparent plate formed on, and in contact with, substantially the entire light emitting surface of said optical modulation device" as recited in claim 4.

The Office Action, at page 2, asserts that Yamada, in Fig. 2, discloses the structure of claims 1 and 4. Applicants respectfully disagree with the Office Action's interpretation of Yamada.

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Yamada, in Fig. 2, and at col. 1, lines 47-63, discloses polarizing plates 206 and 207 attached to the outer surfaces of substrates 202, 203 of the liquid crystal cell 201. The device disclosed in Fig. 2 of Yamada fails to disclose, teach or suggest any transparent plate. In fact, the device in Fig. 2 of Yamada has deficiencies/disadvantages, i.e., poor display quality due to dust attached to polarizing plates, which the invention set forth in claims 1 and 4 aims to prevent or reduce.

Regarding the rejection of independent claims 1 and 4 under §102(e) over Omae, the Office Action asserts that Omae, at col. 8, lines 31-38, and in Figs. 1 and 22, discloses an optical modulation device (liquid crystal layer 13 in Fig. 1, or liquid crystal panel 152 in Fig. 22), and a transparent plate (transparent substrate 11 in Fig. 1, or transparent plate 153 in Fig. 22) that is bonded to, and in contact with, substantially the entire length of at least one surface of the optical modulation device. Applicants respectfully disagree with the Office Action's interpretation of Omae.

First, unlike the Office Action's assertion, the liquid crystal layer 13 disclosed in Omae is not an optical modulation device, because the entire device in Fig. 1 is disclosed by Omae as a liquid crystal panel. Liquid crystal layer 13 is just a polymer dispersion liquid that is inserted in a gap between substrates 11 and 12. (See Omae, at col. 8, lines 13-37.) That is, the entire liquid crystal panel of Omae might be considered to be an "optical modulation device", but the layer 13 alone is not an "optical modulation device."

Second, unlike the Office Action's assertion, neither the transparent substrate 11 (in Fig. 1) nor the transparent plate 153 (in Fig. 22) is "bonded to, and in contact with", the liquid crystal layer 13, or the liquid crystal panel 152, respectively. Instead, as shown in Fig. 1,

Omae discloses a counter electrode 16 positioned between the transparent substrate 11 and layer 13. While electrode 16 may be in contact with (but not bonded to) the liquid crystal layer 13, the transparent substrate 11 is not "bonded to, and in contact with" the layer 13. Further, as shown in Fig. 22, and at col. 17, lines 11-21, Omae discloses that "the transparent plate 153 is connected to the emission side of the liquid crystal panel 152 with the transparent body 154 therebetween."

For at least these reasons, it is respectfully submitted that independent claims 1 and 4 are patentable over the applied art. Withdrawal of the rejections of claims 1 and 4 under 35 U.S.C. §102(b) and 35 U.S.C. §102(e) is respectfully requested.

Regarding the rejection of claims 2, 3 and 5-13 under 35 U.S.C. §103(a), neither Yamada, nor Hashizume, Arai or Fujimori 485, provide the deficiencies in Omae discussed above with respect to claims 1 and 4. Thus, Applicants submit that claims 2, 3 and 5-13, which depend from independent claims 1 and 4, respectively, are likewise patentable over the applied art for at least the reasons discussed above. Withdrawal of the rejection of claims 2, 3 and 5-13 under 35 U.S.C. §103(a) is respectfully requested.

Regarding the rejection of independent claims 18 and 19 under 35 U.S.C. §103(a), the combination of Yamada and Fujimori 205 does not teach or suggest a projector having a transparent plate bonded to, and in contact with, substantially the entire length of a light emitting surface of a optical modulation device, as set forth in claim 18. Further, the combination of Yamada and Fujimori 205 does not teach or suggest a projector comprising, *inter alia*, a partition having a transparent plate fitted in a light incident window corresponding to a light incident surface of an optical modulation device, and a light outgoing window that emits the light flux modulated by the optical modulation device, as set forth in amended claim 19.

As discussed above, Yamada, in Fig. 2 and at col. 1, lines 47-63, discloses polarizing plates 206 and 207 attached to the outer surfaces of substrates 202, 203 of the liquid crystal cell 201. Similarly, Fig. 4 of Yamada discloses polarizing plates 8 attached to substrates 2, 3 of cell 1. The devices disclosed in Figs. 2 and 4 of Yamada fail to disclose, teach or suggest any transparent plate. Further, in Yamada, as shown in Figs. 5 and 6, each of the transparent cover members 6 and 7 is attached only at the top and bottom of the one surface of the liquid crystal cell 1. Further, neither Fujimori 205 nor Yamada provide any motivation to modify their structure to achieve the claimed invention.

Thus, Applicants submit that claims 18 and 19 are patentable over the applied art for at least the reasons discussed above. Withdrawal of the rejection of claims 18 and 19 under 35 U.S.C. §103(a) is respectfully requested.

Regarding claims 14-17, Fujimori 205 in combination with Yamada does not teach or suggest a "partition having a transparent plate fitted in a light incident window corresponding to a light incident surface of at least one optical modulation device", as recited in independent claim 14.

The Office Action, at page 20, in responding to Applicants' arguments raised in the July 14, 2003 Amendment After Final Rejection, seems to imply that the above feature is not recited independent claim 14. Applicants direct the Examiner's attention to claim 14 which unambiguously recites a "partition having a transparent plate fitted in a light incident window corresponding to a light incident surface of at least one optical modulation device".

The Office Action, at page 12, admits that Fujimori 205 does not teach or suggest a transparent plate fitted in a light incident window. However, the Office Action attempts to make up for the shortcomings of Fujimori 205 by asserting that Yamada makes up for this deficiency. The assertion is respectfully traversed.

Yamada, as disclosed at col. 3, line 58 to col. 4, line 39, and shown in Figs. 5 and 6, is directed to a liquid crystal cell that may be used in a active matrix LCD device. Figs. 5 and 6 simply illustrate a schematic cross-sectional view of the liquid crystal cell 1. Contrary to the Office Action's assertion, nowhere in Yamada there is taught or suggested a transparent plate fitted in a light incident window, as recited in independent claim 14.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Contrary to well settled case law, the Office Action is now engaging in impermissible hindsight reconstruction of the invention set forth in claim 14 using Applicants' claim structure as a template and selecting elements from references to fill the page. There is nothing in either Fujimori 205 or Yamada to teach or suggest the recited feature a "partition having a transparent plate fitted in a light incident window corresponding to a light incident surface of at least one optical modulation device", as recited in independent claim 14.

For at least the reasons discussed above, Applicants submit that claim 14 is patentable over the applied art. Claims 15-17, which depend from claim 14, are likewise patentable over the applied art for at least the reasons discussed above. Withdrawal of the rejection of claims 14-17 under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-19 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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